

WHAT IS CLAIMED IS:

1. A method of constructing a database for managing manufacturing engineering information comprising:

defining a set of products having a collection of attributes of use which are arbitrarily predetermined as a series product; and

defining each product contained in said series product by a collection of values of said attributes of use.

2. The method according to claim 1, wherein all of the products of the series product have common specifications.

3. The method according to claim 1, wherein the attributes of use include at least one of shape, grain, and function.

4. The method according to claim 1, wherein each different one of the products of the series product is defined by having a different value for at least one of said attributes of use.

5. The method according to claim 1, wherein the products of the series product have a number of different attributes of use within a range from 10 to 20.

6. The method according to claim 1, further comprising:  
setting manufacturing series activities for achieving  
particular values of the individual attributes of use; and  
deriving a manufacturing process for a particular  
5 product of the series product by arranging said manufacturing  
series activities in a prescribed sequence. 101

*implementing...*

7. The method according to claim 6, wherein when at least  
one of the attribute values of the particular product is left  
undetermined, the manufacturing process is derived using a  
default value with respect to the at least one undetermined  
5 attribute value. 101

✓ 8. The method according to claim 6, wherein said series  
activities include at least one of welding, polishing and  
assembling. 101

✓ 9. The method according to claim 6, wherein parts to be  
5 used in the manufacturing process are determined in accordance  
with the set series activities. 101

10. The method according to claim 6, further comprising:  
deriving a manufacturing process for a new product from  
parts used in the series activities; and  
carrying out retrieval of the parts recursively. ←

112 2d sub/comb  
112 2d ind. def.  
101

11. The method according to claim 6, wherein works-in-process produced by the series activities are not registered. 1512

✓ 12. The method according to claim 6, wherein works-in-process produced by the series activities are automatically synthesized. 101

505 B27 13. A method of constructing a database for managing manufacturing engineering information comprising:  
representing a by-product using a set of values of attributes of use, said by-product being produced by manufacturing series activities and excluding works-in-process produced by said manufacturing series activities; and  
managing the by-product as a product.

5 14. A recording medium having stored thereon a computer program for constructing a database for managing manufacturing engineering information, said computer program comprising:

5 program code means for enabling a computer to define a set of products having a collection of attributes of use which are arbitrarily predetermined as a series product; and

program code means for defining each product contained in said series product by a collection of values of said attributes of use.

15. A manufacturing engineering information management system comprising:

attribute value storing means storing values of attributes of use which are arbitrarily predetermined, and a set of products having a collection of said attributes of use;

activity storing means for storing activities which may be applied to achieve said values of said attributes of use, as well as time and physical resource data required by said activities; and

manufacturing engineering information management means for managing a manufacturing process of a particular product of the set of products based on said stored activities, and for managing parts or manufacturing steps of said particular product based on said stored time and physical resource data required for said activities.